Patent claims

1. An optical transmission system (OTS) comprising a fixed number (N) of optical fiber line sections (FDS_1 to FDS_4) of virtually the same length with in each case an optical fiber ($SSMF_1$ to $SSMF_4$) and a dispersion compensation unit (DCF_1 to DCF_4), characterized in that the dispersion compensation units (DCF_1 to DCF_4) have virtually the same compensation values, which are determined starting from a calculated or estimated accumulated residual dispersion (D_{akk}) for an at least virtually uniformly distributed undercompensation of the fiber dispersion (d) of the fixed number (N) of optical fiber line sections (FDS_1 to FDS_4).

2. The optical transmission system as claimed in claim 1, characterized in that the dispersion compensation units (DCF_1 to DCF_4) are provided for compensating the fiber dispersion (d) of all the optical fiber line sections (FDS_1 to FDS_4).

3. The optical transmission system as claimed in one of claims 1 or 2, characterized in that a fiber line section (FDS_1) having an optical fiber ($SSMF_1$) and a dispersion compensation unit (DCF_1) implements an optical transmission module (M).

4. The optical transmission system as claimed in claim 3, characterized in that the optical transmission system (OTS) can be formed from a plurality of optical transmission modules (M) arranged in series.

5. The optical transmission system as claimed in one of claims 1 to 4, characterized in that the optical fibers (SSMF) of the fiber link sections (FDS) have a minimum length of 20 kilometers.

6. The optical transmission system as claimed in one of claims 1 to 5, characterized in that a bidirectional data transmission can be implemented via the fiber line sections (FDS$_1$ to FDS$_4$).